

ABSTRACT OF THE DISCLOSURE

A piston includes a circumferential groove having a dynamic split seal ring having a flat axially facing surface, a static seal ring having a flat axially facing surface abutting the flat surface of the dynamic seal ring, and a spring mounted within the
5 groove. The spring exerts an axial force on the static seal ring that serves to distribute the axial load with a static seal over the dynamic split seal, thereby preventing shuttling of the split seal within the groove and restricting the leak path of the seal. Preferably, the static seal ring is a polymer and can be an L-ring, a load ring with a flange that abuts the piston body, or flanged designs. In addition, a load ring can be fitted between the L-
10 ring and the spring. The split seal ring has at least one radial spring mounted within the seal ring to create a radial force on the split seal ring. The piston can also include a sleeve that mounts to the piston body, the sleeve forming a wall of the groove. The piston can be a displacer mounted within a cylinder of a refrigerator.